Final Power Amplifier

May 7, 2014

Summary:

The FPA was designed to use a Thales TH628 Diacrode®, a recently designed tetrode power tube. The FPA is designed with tunable input and output transmission line cavity circuits, a grid decoupling circuit, an adjustable output coupler, high order mode suppressors, DC blocking, RF bypassing and RF decoupling capacitors, and a cooling system.

A prototype Final Power Amplifier (FPA) has been designed, fabricated, assembled, and tested. In doing so, a manufacturing process sequence, silver plating test results, and assembly/installation sequence have been developed and performed by the project team at LANL. The prototype FPA has met the design goals producing 2.5 MW peak at 10% duty factor and 250 kW of average power, at an elevation of 7000 feet above sea level in Los Alamos.

Licensing Status:

Available for licensing or cooperative partners.

For more information, contact Licensing@lanl.gov.

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